

Publication

**EP 0936268 A3 19990915**

Application

**EP 99300286 A 19990115**

Priority

- JP 622198 A 19980116
- JP 2120198 A 19980202

Abstract (en)

[origin: EP0936268A2] A cleaning solution for electromaterials including hydrogen fluoride and either oxygen or hydrogen gas dissolved in water. The cleaning solution may alternatively include hydrogen fluoride, hydrochloric acid or nitric acid, and hydrogen or oxygen gas dissolved in water. Alternatively, the cleaning solution includes hydrogen fluoride, hydrogen peroxide and oxygen gas dissolved in water. The present invention also provides a method for cleaning electromaterials including applying an ultrasonic vibration to cleaning solution applied to electromaterials.

IPC 1-7

**C11D 7/02**; **C11D 7/08**; **H05K 3/26**

IPC 8 full level

**C11D 3/39** (2006.01); **C11D 7/08** (2006.01); **C11D 11/00** (2006.01); **H05K 3/26** (2006.01)

CPC (source: EP KR US)

**C11D 3/3947** (2013.01 - EP US); **C11D 7/08** (2013.01 - EP US); **H01L 21/304** (2013.01 - KR); **C11D 2111/22** (2024.01 - EP US); **H05K 3/26** (2013.01 - EP US)

Citation (search report)

- [X] US 5340437 A 19940823 - ERK HENRY F [US], et al
- [X] PATENT ABSTRACTS OF JAPAN vol. 096, no. 003 29 March 1996 (1996-03-29)
- [X] PATENT ABSTRACTS OF JAPAN vol. 018, no. 311 (E - 1561) 14 June 1994 (1994-06-14)
- [X] PATENT ABSTRACTS OF JAPAN vol. 095, no. 006 31 July 1995 (1995-07-31)
- [X] DATABASE WPI Section Ch Week 9147, Derwent World Patents Index; Class L03, AN 91-342953, XP002108424
- [X] PATENT ABSTRACTS OF JAPAN vol. 096, no. 007 31 July 1996 (1996-07-31)
- [X] PATENT ABSTRACTS OF JAPAN vol. 097, no. 007 31 July 1997 (1997-07-31)

Cited by

FR2802130A1; US7012056B2; US8076219B2; WO2004092318A1; WO2007024515A1; WO2009086983A1; US8765606B2; US7479460B2

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

**EP 0936268 A2 19990818**; **EP 0936268 A3 19990915**; **EP 0936268 B1 20030709**; DE 69909346 D1 20030814; DE 69909346 T2 20040415; KR 100437429 B1 20040625; KR 19990067948 A 19990825; TW I239561 B 20050911; US 6346505 B1 20020212

DOCDB simple family (application)

**EP 99300286 A 19990115**; DE 69909346 T 19990115; KR 19990001208 A 19990116; TW 88100592 A 19990115; US 22987799 A 19990114